## Remarks

## **Claim Amendments and Additions**

Applicant has amended claim 1 to specify that the catalyst material *consists* essentially of platinum and 20-50 at.% of a second metal other than platinum, wherein the second metal is at least one member selected from the group consisting of ruthenium, iron, rhodium, cobalt, molybdenum, nickel and manganese.

Applicant also seeks introduction of new claims 3-9. Claims 3-9 are dependent on claim 1. These claims are supported by the specification and do not present an issue of new matter. Applicant believes that consideration of these claims would not constitute a substantial burden to the Office or require a new search. Accordingly, Applicant respectfully requests consideration and entry of new claims 3-9 into the application.

However, if the Office disagrees with Applicant's position regarding any one of the newly added claims and such disagreement prevents the Office from finding the presently claimed invention allowable, the Office is hereby authorized to cancel any or all of the newly added claims by Examiner's amendment.

## Rejections under 35 U.S.C. §102

On page 2, the Office maintains its rejection of claims 1-2 under 35 U.S.C. §102(b) as anticipated by U.S. Pat. No. 3,884,838 to Fleming et al.

The Office alleges that Fleming et al disclose a catalyst composition containing a ruthenium-platinum alloy and tungsten on a mordenite support.

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Applicant has amended claim 1 to effectively exclude the presence of tungsten oxide. Applicant respectfully submits that this amendment overcomes the rejection over Fleming et al.

## **Obviousness Rejections**

On pages 2 to 4, the Examiner maintains his rejection of claims 1-2 under 35 U.S.C. §103(a) as obvious over JP 7-256112 in view of the "Database of Zeolite Structures" published by the ETH, Zürich.

The Examiner alleges that JP 7-256112 discloses a catalyst composition comprising a zeolite and a metal supported thereon, with the zeolite having an aperture size between 0.4 and 2 nm.

The Examiner acknowledges that the JP 7-256112 does not disclose that (1) the zeolite carrier is mordenite and (2) the amount of the non-platinum metal present in the alloy.

The Examiner alleges that the selection of mordenite would have been obvious in view of the disclosure in "Database of Zeolite Structures" that mordenite has an aperture size of 0.75 nm.

The Examiner further alleges that it would have been obvious to one skilled in the art at the time the invention was made to choose the instantly claimed ranges through process optimization, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art.

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In response, Applicant respectfully submits that a particular parameter must first be recognized as a result effective variable, i.e., a variable which achieves a recognized result, before the determination of the optimum workable ranges of the variable might be characterized as routine experimentation.

In this case, JP 7-256112 does not indicate that the ratio of platinum to non-platinum metal in the alloy is a result effective variable for any purpose and certainly not for the purpose of increasing the selectivity of carbon monoxide oxidation. The Office is respectfully referred to MPEP §2144.05 II.B. and <u>In re Antonie</u>, 195 USPQ 6 (CCPA) cited therein. Applicant has also not found any indication of a suggestion of proportional balancing in JP 7-256112 that was key to the decision in <u>In re Boesch</u>, 205 USPQ 215 (CCPA 1980) on which the Examiner relies.

Also, Applicant's claim 1 recites an alloy comprising more than one metal. In contrast, JP 7-256112 discloses that better results are achieved with a monometallic rather than, e.g., a bimetallic catalyst. See esp@cenet abstract and related U.S. Patent No. 6,168,772, which is submitted herewith in an Information Disclosure Statement.

As can be seen from Table 4 of JP 7-256112 the best CO selectivity reported in the context of the catalyst disclosed therein is 63%. As can be seen from Table 2 in the specification, the CO selectivity of the catalyst according to the present invention at 150°C is significantly higher. For the Examiner's convenience, Applicant provides the following Table, the data of which is derived from Table 2 of the application.

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Present Invention [CO selectivity]		JP 7-256112 [CO selectivity]
Pt-20%Ru	83.4	
Pt-30%Ru	89.7	63%
Pt-40%Ru	78.6	
Pt-50%Ru	64.0	

Upon request, Applicant would be pleased to submit the above data in the form of a declaration.

On page 4, the Examiner maintains his rejection of claims 1-2 under 35 U.S.C. §103(a) as obvious in view of U.S. Patent No. 6,117,581 to Shelef.

Applicant submits herewith a verified English translation of the Japanese priority document of the present application. Applicant respectfully submits that this translation shows that the present application is fully supported by the priority document. The priority document predated the filing date of Shelef et al. and thus removes Shelef et al. as prior art.

In the event that this paper is not accompanied by the full fee required for its consideration, the Commissioner is authorized to charge any insufficient or missing fees to RFEM's deposit account No. 02-2135. The Commissioner is also authorized to deposit any overpayment to the same account. A duplicate copy for the financial branch is enclosed.

RESPECTFULLY SUBMITTED,				
NAME AND REG. NUMBER	Joyce von Natzmer, Reg. No. 48,120			
SIGNATURE	Spec v. Wikuno	DATE	7/8/03	
Address	Rothwell, Figg, Ernst & Manbeck 1425 K Street, N.W., Suite 800			
City	Washington	State	D.C.	
Country	U.S.A.	Teleph one	202-783-6040	